Physics revision:

The following formulae are provided in the exam:

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|  |  | *F = ma* |
| *W = Fd* | *GPE = mgh* | *g* = 9.8 m/s2 |

1. What does each of the symbols represent:
   1. *v=*
   2. *d=*
   3. *t=*
   4. Δv=
   5. F=
   6. W=
   7. a=
   8. g=
   9. GPE=
   10. m=
2. You ride your bike to school at an average speed of 20kph. It take you 6 minutes to get to school.
   1. How far do you live from school?
   2. What formula did you use?
   3. The next morning you ride to your friend’s place, it takes you 10 minutes at 20 kph, then you both ride to school at 15 kph. What is the total distance you travelled?
3. Write in words the meaning of
   1. Acceleration
   2. Velocity
   3. Speed
4. What are Newton’s three laws

1st Law

2nd Law

3rd Law

1. As a car approaches a red traffic light, it slows down to 20kph. The light turns green and the driver puts her foot on the accelerator to reach 50 kph in 5 seconds.
   1. What is the acceleration of the car?
   2. What formula did you use?
   3. What is the opposing force to the thrust of the motor in causing acceleration?
2. What is inertia?
3. Mrs Egan’s daughter is rushing to the hospital to have her baby. The hospital is 5k from her house and Glenn travels at an average speed of 50kph.
   1. How long will it take them to get to the hospital?
   2. What formula did you use?
   3. Draw the car and draw and name each of the forces acting on it
4. Draw the Life Cycle of a Star, naming each stage